

**ENGINEERING STATEMENT
HOWARD UNIVERSITY
TELEVISION STATION WHUT-TV, WASHINGTON, DC
FILE NUMBER BLEDT-20071018AIJ
APPLICATION TO OPERATE AN ATSC 3.0 NEXT GEN TV STATION**

This statement supports an application by Howard University, licensee of non-commercial educational digital television station WHUT-TV ("WHUT"), to construct an ATSC 3.0 ("3.0") Next Gen TV station.

The purpose of this statement is to demonstrate compliance with the rules concerning the coverage requirements of its ATSC 1.0 ("1.0") signal when it converts its current transmission facility to ATSC 3.0.

WHUT proposes to partner with television station WJLA-TV ("WJLA") to host and simulcast its primary channel programming in the current digital television standard 1.0, so that viewers without the ability to receive 3.0 will continue to receive WHUT's primary broadcast service. Both WHUT and WJLA are licensed to serve the Washington, DC (Hagerstown, MD) DMA.¹

WHUT's proposed 3.0 coverage contour will be the same as that of its current licensed 1.0 contour. Referring to the attached coverage map, Figure 1, it is shown that the coverage contour of the host simulcast 1.0 station, WJLA, well encompasses the current 1.0 and proposed 3.0 coverage contours of WHUT. WHUT will transmit both its 1.0 and 3.0 signals in compliance with the rules.²

Referring to the population count comparison, Figure 2, WHUT is not predicted to experience any loss of population with WJLA serving as the simulcast host 1.0 station.

With there being neither a reduction in WHUT's ATSC 1.0 noise limited contour nor a loss of population for its 1.0 signal, hosted by WJLA, this application should be eligible for expedited processing.³

¹ 47 CFR §73.3801(c)

² 47 CFR §73.682(f) and 47 CFR §73.682(f)(2)

³ 47 CFR §73.3801(f)(5)

Figure 1 - Coverage Contour Comparison
Washington, DC (Hagerstown, MD) DMA Shown in Cyan
WHUT-TV, Ch. 33, Washington, DC, 100kW ERP, Non-Directional, 254m HAAT
ATSC 1.0 Host WJLA-TV, Ch. 7, Washington, DC, 52kW ERP, Non-Directional, 235.6m HAAT

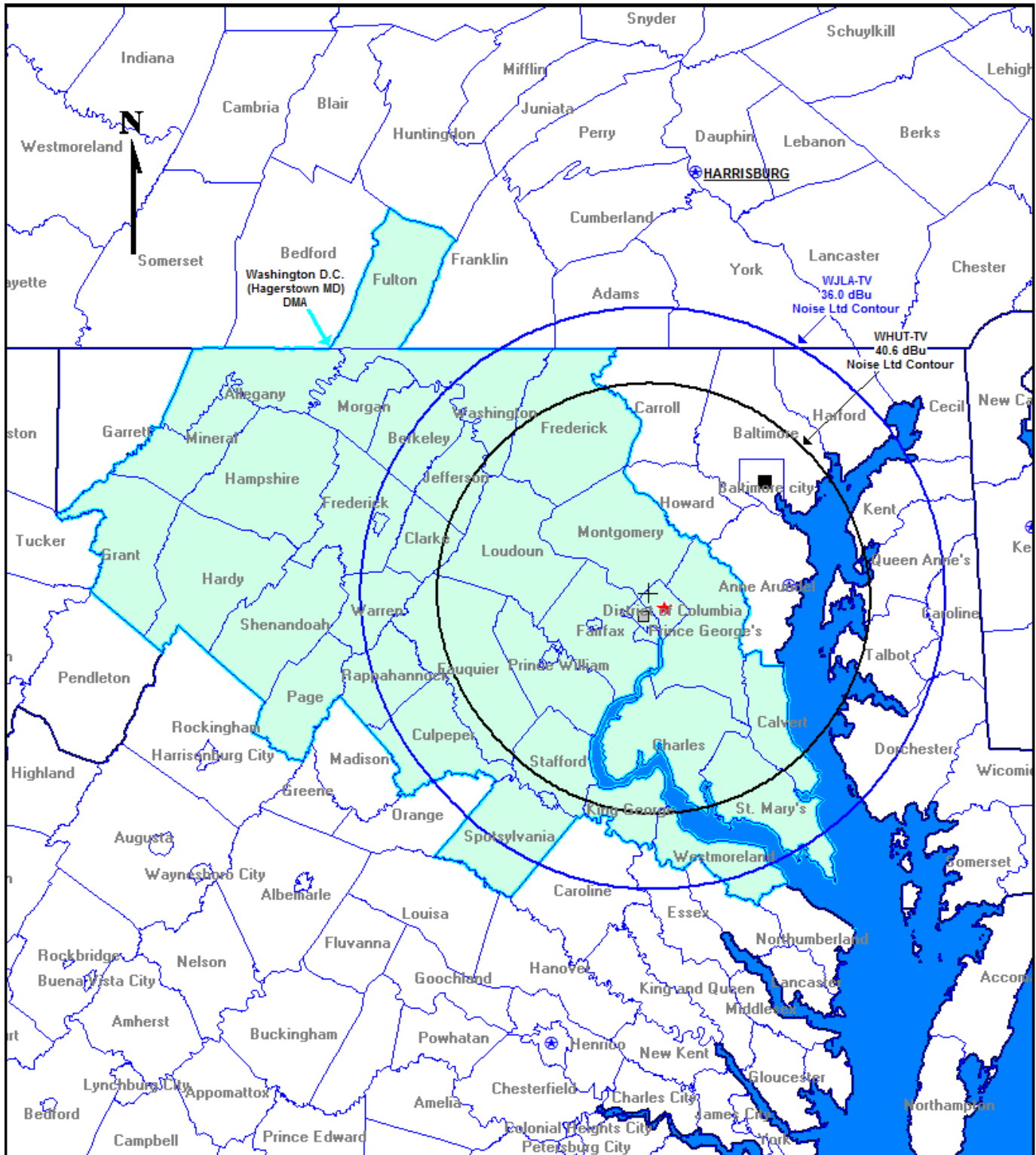


Figure 2
Population Count Comparison
WHUT-TV vs. WJLA-TV

Below is a population count comparison of the current WHUT-TV ATSC 1.0 and proposed ATSC 3.0 operations with the proposed ATSC 1.0 operation on host station WJLA-TV. The population count of the proposed ATSC 1.0 operation on the host station exceeds that of the current WHUT ATSC 1.0 by 13.8%.

		Population - Interference Free			
State	County	WHUT-TV Population	WJLA-TV Population	Difference	
DC	DC	601,723	601,723	0	0.0%
MD	Anne Arundel	526,226	537,656	11,430	2.2%
MD	Baltimore	698,223	803,380	105,157	15.1%
MD	Calvert	63,919	88,737	24,818	38.8%
MD	Caroline	0	7,010	7,010	>>>>
MD	Carroll	121,139	163,953	42,814	35.3%
MD	Charles	144,310	146,551	2,241	1.6%
MD	Dorchester	0	12,979	12,979	>>>>
MD	Frederick	188,252	231,776	43,524	23.1%
MD	Harford	0	196,351	196,351	>>>>
MD	Howard	287,085	287,085	0	0.0%
MD	Kent	1,693	15,680	13,987	826.2%
MD	Montgomery	971,743	971,777	34	0.0%
MD	Prince George's	863,075	863,420	345	0.0%
MD	Queen Anne's	23,905	43,051	19,146	80.1%
MD	St. Mary's	31,269	87,488	56,219	179.8%
MD	Talbot	5,629	37,655	32,026	568.9%
MD	Washington	3,067	19,760	16,693	544.3%
MD	Baltimore	607,586	620,961	13,375	2.2%
PA	Adams	0	26,017	26,017	>>>>
PA	Franklin	0	3,304	3,304	>>>>
PA	York	0	24,477	24,477	>>>>
VA	Arlington	207,627	207,627	0	0.0%
VA	Caroline	0	5,360	5,360	>>>>
VA	Clarke	1,182	9,260	8,078	683.4%
VA	Culpeper	0	37,296	37,296	>>>>
VA	Essex	0	956	956	>>>>
VA	Fairfax	1,074,307	1,081,726	7,419	0.7%
VA	Fauquier	42,769	64,120	21,351	49.9%
VA	Frederick	0	17,249	17,249	>>>>
VA	King George	17,484	22,875	5,391	30.8%
VA	Loudoun	311,943	312,311	368	0.1%
VA	Orange	0	13,315	13,315	>>>>
VA	Prince William	402,002	402,002	0	0.0%
VA	Rappahannock	0	3,886	3,886	>>>>
VA	Richmond	0	470	470	>>>>
VA	Spotsylvania	0	100,745	100,745	>>>>

VA	Stafford	93,755	128,370	34,615	36.9%
VA	Warren	0	8,595	8,595	>>>>
VA	Westmoreland	1,830	13,688	11,858	648.0%
VA	Alexandria	139,966	139,966	0	0.0%
VA	Fairfax	22,565	22,565	0	0.0%
VA	Falls Church	12,332	12,332	0	0.0%
VA	Fredericksburg	0	24,024	24,024	>>>>
VA	Manassas	37,821	37,821	0	0.0%
VA	Manassas Park	14,273	14,273	0	0.0%
VA	Winchester	0	20,742	20,742	>>>>
WV	Berkeley	0	39,750	39,750	>>>>
WV	Jefferson	5,989	32,066	26,077	435.4%
Total:		7,524,689	8,564,181	1,039,492	13.8%